

ESTABLISHED 1848



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## GOLMAN'S RURAL WORLD

NORMAN J. GOLMAN, Editors.

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India is again afflicted with a terrible famine that extends over an area surpassing the worst fears. The Viceroy says they are now facing a cattle, water and food scarcity of a terrible character. About 8,000,000 persons, he continues, are already receiving relief. While in 1877 the world shared India's sorrow and contributed hundreds of thousands of pounds towards the relief fund, the viceroy pointed out India now would have to struggle alone, for the thoughts of every Englishman in the world were centered on South Africa. It would be the duty of the government to pursue the task of saving millions of lives and it would spend its last rupee if necessary to do so.

We it not for what follows later in LeRoy Gardner's very thoughtful article on "Mental Training for the Farmer," on this page, we would be inclined to take strong exception to one of his statements. He says: "Their life is a dull routine; there is a sameness and a tameness about it, a paucity of subjects for contemplation most dangerous to mental integrity." We presume, of course, that Mr. Gardner intends to be understood as implying that in the absence of the mental training and awakening for which he pleads, there is the dull routine, sameness, tameness and paucity of subjects for contemplation which he deprecates. Given that mental awakening there is nowhere else in the world such an abundance or variety of food for the mind as on the farm.

We join with Mr. Gardner in pleading for more and better mental training for farmers; for more consideration of their needs in connection with the public schools, particularly those of the rural districts, so that when they come to engage in the business of farming it will not be to them a dull routine, a mere animal existence, but one in which they are the manipulators daily of the mightiest forces of nature, co-workers with nature's God in myriads of mysteries. Surely He who painted the sky and wrapped in each tiny seed the spark of perpetuity did not intend that the man into whose keeping these wonders were given should be other than the noblest of His creatures.

### THE FIRE FIEND IN ST. LOUIS.

St. Louis was visited by a very disastrous fire last Sunday, Feb. 4. One fireman was killed and several others severely injured while fighting the fire and nearly \$2,000,000 worth of property was destroyed. Among the firms injured were two large seed houses, the Plant Seed Company and the Schlesinger-Cornell Seed Company, which are advertisers in our columns. Let our readers may assume that orders for seed sent to these firms cannot, under the circumstances, be filled, we take occasion to assure them that they need no such fears. The firm's reserve stocks in warehouses were uninjured and will enable them to fill all orders with but little delay.

### THE KENTUCKY SITUATION.

A deplorable condition of affairs has lately been existing in Kentucky, growing out of the state election last November, W. S. Taylor, the Republican candidate for Governor, was declared elected by the Election Board and a certificate of election was accordingly issued to Mr. Taylor, and he was inaugurated as Governor. Mr. William Goebel, the Democratic candidate for Governor and author of the election law in force, contested Mr. Taylor's election and a bitter political battle was in progress when Mr. Goebel was shot by an unknown and hidden assassin, dying after a few days' struggle for life that aroused deep and widespread sympathy. Before death came the legislature suspended further contest proceedings and declared Mr. Goebel elected Governor. In the meantime the terrible tragedy had developed such excitement and danger of riot and further bloodshed that Governor Taylor adjourned the legislature to meet again Feb. 8 at London, Ky. At this writing it is reported that the party leaders have effected a compromise, the proclamation convening the legislature at London will be recalled, the legislature will reconvene at Frankfort, and the election contest will be further considered. Governor Taylor agreeing to abide by the decisions reached by the legislature and the courts.

### A NEW NATURE STUDY BOOK.

"Stories of Insect Life," the second of a series by Mary E. Murtfeldt and Clarence Moore Weed, is a particularly interesting and valuable book for children. The life histories of the insects from which children turn screaming with fright is so fascinatingly presented that they read like fairy tales; yet the facts regarding the bugs, moths, worms and caterpillars are told in a manner to invite the child's at-

### SPECIAL OFFER.

While the regular subscription price for the RURAL WORLD will remain at one dollar per year, yet, in order to more than double our present circulation for the year 1860 we have determined for a brief period to allow all of our present subscribers to renew their subscriptions by sending the name of a NEW subscriber with their own for one dollar—thus getting two papers for one year for only one dollar. In all cases, however, the additional name or names must be new subscribers. Renewals will not be received at fifty cents, except when accompanied by a new subscriber. Two NEW subscribers at the same time, however, will be received for one year for one dollar. New subscribers can also send additional new subscribers on the same terms. This is below the actual cost of the paper. But so anxious are we to have the RURAL WORLD enter ten of thousands of new homes that we are willing to make this low offer. We know the RURAL WORLD is doing a grand work in uplifting the farmer, and we are more than anxious that its benefits shall be extended to the widest limits, hence this special offer. We hope to have 100,000 subscribers on our list for 1860.

tention and to awaken new interest. RURAL WORLD readers feel well acquainted with Miss Murtfeldt of Kirkwood, Mo., who has long been known as an authority in entomology, and Mr. Weed has a national reputation as an entomologist. Their united efforts have given a book to the children that is of great value. What a delightful gift for a child it would be. Teachers should give this little book a careful review. It will help them to solve the problem of how to interest many a so-called "full boy." Books do much to form habits of thought. When considering a list of books include in it this "Stories of Insect Life," published by Ginn & Co., Boston, Mass.

### THE CENSUS TAKER IS COMING.

It is hoped and expected that the census to be taken this year will be the most comprehensive that has ever been taken in the United States. Especial pains, we understand, will be taken to gather full and accurate agricultural data. These census statistics will doubtless be of very great value as a source of practical everyday information. They must be gathered, however, largely from the individual farmers, and their value will, in great measure, be determined by the accuracy of the replies given to the census takers. It would be well if farmers everywhere would give some thought to this matter and be prepared to answer all questions as to acreage and yield of crops, number and value of live stock and prices of farm products. Do not wait until the census taker puts on an appearance before putting on the thinking cap. He may come when you are very busy and can little afford to stop and figure it all out. Now is a good time to get all the facts about which inquiry will be made, well in mind and put on paper where they can be readily referred to.

Let the older boys and girls help you in this matter. Few of them will even remember the last census taker's visit, hence it will be a new experience, a new source of knowledge. Take occasion to explain to them what the census is, its purposes and how, in general, it is taken. Then with their assistance take an account of stock and products on hand, and of what has been sold during the past year and prices obtained, acres of land devoted to each crop, yield in bushels per acre, poultry on hand and sold, apianary stock and product, etc.

This is what every farmer ought to do every year, and now is a good time to begin the practice which, if followed faithfully for the next decade, would be worth millions of dollars to the agricultural interests of this country by putting the business of farming on a business basis.

### WHO SHALL DO THE CHORES?

Chores are regarded as the "light work" of the farm, and father sees no reason why the boys can't do them, and hence this work is delegated to the boys. Feeding the calves, throwing corn to the hogs, taking the young stock to water and similar work can be done by the boys, while father is loading or unloading straw or hay, hauling fodder, plowing, cutting the wood or doing work that is too heavy for the tender muscle of the young arms. This apportionment of labor is well-meaning, but is it wise? The feeding is not being satisfactorily done, the stock not carefully watered, and instead of that rapid growth and development which result from judicious watering and feeding of the young stock there is the stunted, bow-backed calf or the gaunt, dwarfed colt. At the feed box and watering trough the young animal indicates what goes its capabilities to make money for its owner, and calls the immature judgment of the half-grown boy to be relied upon to determine whether "bossy" is making sufficient growth for feed given? The growing lad does not always understand the need of

regularity in feeding. He grows impatient because "Old Brindle's" calf is such a slow drinker, he loses his temper because of the antics of that nervous, high-strung calf that causes him a long tramp, and his treatment of this "torment" is usually harsh.

Where boys have such chores to do, they should be carefully instructed regarding all the details of the work given them and made cognizant of the losses accruing from any neglect. The best results will be secured when the boy is given a calf or colt of his own as a reward for his labor in caring for the others. Don't call it John's calf or Tom's colt, and when it is sold pocket the proceeds. You may forget, but John and Tom will always remember. But best results will be secured if the most intelligent member of the household of mature judgment will do the chores. Let the boys do the work with you under your supervision: you having the fullest conception of this important part of the farm work.

### THE STATE FAIR.

In a recent issue the Mexico (Mo.) "Intelligencer" strongly urges the importance of the Missouri State Fair and the need for the next legislature to make ample provision for putting this great enterprise on its feet. "Once established, the people will realize the vast benefits to be derived from the enterprise and will liberally maintain it."

Northwest Missouri did not advocate a state fair for selfish local interests. This section wants to see a great state fair which will benefit every section and every interest. To this end northeast Missouri will solidly favor liberal aid to the state fair and will gladly co-operate with all other sections in making the enterprise worthy our magnificent commonwealth."

### MENTAL TRAINING FOR THE FARMER.

Editor RURAL WORLD: It should not be matter for surprise that more farmers become insane in proportion to their numbers than the numbers of any other profession, when we consider the extent to which their muscles are taxed at the expense of the brain. Their life is a dull routine; there is a sameness and tameness about it, a paucity of subjects for contemplation most dangerous to mental integrity. The proper remedy against the sad effect of a plodding routine existence is increased mental activity, a more harmonious exercise of muscle and of mind.

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The management has reduced the yield of grain. Is it any wonder? Some have used fertilizers, but they are expensive. A few are trying the cow糸. Fertility must be put back into the soil. Even the rich soil of the Philippines would refuse to respond to such treatment as has been given here. Our markets here are the best. Anything the farmer raises is ready cash. Why is it? Flour is sent here from the mills of Minnesota and sold at our stores for less, our millers say, than they can buy our wheat and put the flour on the market for. Yet you go a thousand miles from here and you find our flour selling for less than you can buy it here from the millers. Truly, we can ask, why is it? The American people are ambitious, always reaching out; many times reaching out for a nickel while the dollar at their feet is not seen.

The farmer is not careful enough with what he gets. He wastes too much. Look at the large area planted which he is not able to cultivate as it ought to be done. If the crop is good much is wasted by not properly taken care of.

We came to Jasper county in 1869. We have only 80 acres, but what we have is our own. Many around us have not even a home.

If Mr. Heaton would come to this country he would not have to milk in mud over shoe top. Here the cow could be driven under a black jack or let go until it stopped raining, as the ground here dries quickly. Most of the farmers here are making good improvements and erecting convenient buildings for stock and feed.

Jasper Co., Mo. C. S. LADD.

LIKES THE RURAL WORLD.

Mrs. Thomas' Pies for the Birds.

DEAR RURAL WORLD: I write a few words of appreciation to let you know that we like you as well as ever. I have just read Mrs. Thomas' pie for the birds and like it very much. Had it not been for the notice of that article on the first page I might have missed it.

CARRIE W. TRIPPLETT.

Scotland Co., Mo.

LIKES THE RURAL WORLD.

Mrs. Thomas' Pies for the Birds.

DEAR RURAL WORLD: Complying with Mr. LeRoy Gardner's request for information regarding sorghum fodder, I have raised sorghum for feed for a good many years, and think it is the best of anything I have ever tried. I sow in this country about May 10. Some sow later and I have found that as soon as the ground is warm and mellow is the time. I sow a bushel of seed per acre, using a wheat drill. Drilling takes less seed than when broadcasted and makes better feed. On thin land the yield will be from two to four tons per acre. It does better on poor land than any other forage crop I know of. Last summer I sowed 50 acres of very poor sandy land and the yield was over three tons per acre.

I cut the cane when the seeds get black, let lie until it wilts and dries some, then rake in windrows with hay rake. Then with a sweep rake I bunch, putting a good load in a bunch, and let alone until I want to feed. Possibly this last will not suit Mr. Gardner's ideas of how to feed, but I would say sow cane by all means and then feed it.

CHAS. C. FITZSIMMONS.

Wame, Ind. Ter.

SORGHUM FODDER IN INDIAN TERRITORY.

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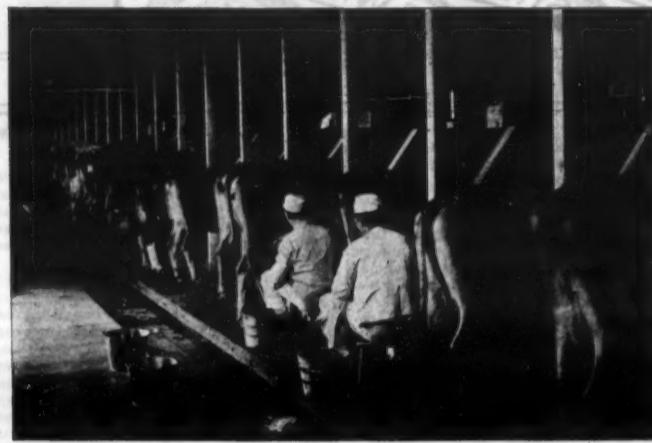
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## The Dairy.

### MILK PRODUCTION

At the University of Illinois.

In a booklet lately issued by the University of Illinois the story of the University dairy herd is so pleasingly and graphically told that its retelling in part in the RURAL WORLD will, we think, be instructive to our readers. Particularly will those who are producing milk for a retail trade be interested in noting how the University people manage so as to produce a high grade of milk of unquestioned purity, but the precautions taken to secure cleanliness are as essential in butter and cheese making if the best products are to be turned out. It is the best in quality that commands the best prices and pays the biggest profits in



WASHING UDDERS BEFORE MILKING.

To secure the milk without contamination, that is the problem.

these days. The story with illustrations follows:

The Herd.—Choice specimens of Holstein-Friesians, Jerseys, and Shorthorns, with a few selected grades, comprise the University herd, which, bred to the best sires obtainable, is maintained as a breeding herd of a high order of excellence.

The health of the animals is kept constantly in view. They are frequently inspected by the professor of veterinary science and are occasionally tested for tuberculosis, thus making the milk safe for infant use, without being either pasteurized or sterilized.

In summer a shady pasture, in winter a clean, comfortable barn and exercises in sheltered yards, always with selected feed and the purest water, insure the most perfect conditions known for the production of wholesome milk.

The Barn.—The barn is spacious, there being 1,800 cubic feet or air space to each

Separating and Testing.—Cream is quickly obtained by passing milk through a centrifugal separator that has a speed of seven thousand revolutions per minute and that may be adjusted to produce a cream of any desirable richness. So rapid is the process that the cream is secured before it commences to sour, making the product of excellent keeping quality.

The cream is frequently examined with the Babcock test, and by the adjustment of the separator the fat is kept at twenty-five per cent, which is the University standard for cream. The milk also is frequently tested and held to the standard by separating, if necessary, sufficient skim-milk to bring the fat up to four per cent.

Utensils and Dairy Rooms.—The pails, strainer, cooler, bottles, and everything with which the milk comes in contact are first rinsed in cool water, then thoroughly



SEPARATING AND TESTING.

"Quality Guaranteed" is the best trade-mark.

animal, or over four times the amount usually allowed in dairy barns.

It is well lighted on all sides, and well arranged to secure the sanitary requirements and the quiet so essential for dairy cows. The stalls and mangers are economy, and constructed with special regard to the comfort and cleanliness of the animals. All inside construction is made of dressed lumber, and thus is easily kept clean.

The cows are well bedded with clean straw frequently renewed, and the floors and gutters are scrubbed each day. No dirt or filth is allowed to accumulate, and every precaution is taken against dust and bad odors at milking time.

Milking.—We have found by experimentation at the University that most of the

washed in hot water and soda, again rinsed, and afterwards sterilized for twenty minutes with live steam in a brick sterilizer. They are then both clean and sterile and do not infect the milk.

The dairy is kept scrupulously clean, and is at all times free from dust and bad odors. The surroundings are favorable for pure air, and nothing producing bad odors is allowed to accumulate. Every effort is made to produce a milk that is as nearly free from all impurities and contamination as can be secured by most carefully observing all the principles and facts known to the science of dairying.

Delivery and Guarantee.—Preparatory to delivery the bottled milk is placed in zinc-lined wooden boxes, thus keeping it

in existence and that where he came from it is being operated successfully winter and summer, covering a territory 20 miles or more in extent. The samples of cream are taken and the cream weighed right at the farmer's door and payment made once a month on the butter fat basis as shown by the Babcock test.

OLEOMARGARINE IS A LIE.

The editor of the "Practical Dairymen," commenting on a letter from a correspondent who attempted to defend oleomargarine, said:

The trouble is that the conclusions are based upon ignorance of the true character of oleomargarine. It is true that many sections are not well supplied with good butter, and the fact is not complimentary to the business acumen of people who live in such destitute sections and who could produce the needed supply of butter. The writer visited Martinsville, Ind., a short time since. The surrounding country is naturally a good dairy section; but the dairymen are careful to see that none but good butter is fed there will be less turning up of noses at silage-made butter.

At a recent farmers' institute Mr. Converse said: "There is some difference between dry silage and ensilage, that there is between hay and grass. Experiments have been made where cows were fed alternately on dry silage and ensilage, and the results were always in favor of the ensilage. It is the water in the ensilage which makes it more valuable. You cannot feed dry silage with water and make as much milk from the cows. The cows to do their best need to be provided with succulent food in the form of ensilage or roots. I can make more and better flavored butter from the ensilage, but of course the ensilage must be of good quality."—Jersey Bulletin.

### "Uneasy Lies the Head That Wears a Crown."

But such are not the only uneasy heads. Overworked housewives, harassed business men, anxious teachers, ambitious students—all ages and both sexes are uneasy with aches, pains, impure blood, disordered stomachs, deranged kidneys and liver. For all such, Hood's Sarsaparilla is the effective and faultless cure. It infuses fresh life and health into all parts of the body through purified, vitalized and enriched blood. Try it.

Hood's Sarsaparilla  
Never Disappoints!

filth and bacteria that find their way into milk come from the surface of the udder during the milking process. To prevent this contamination, the loose dirt is brushed from the sides and bellies of the cows, the udders are washed and wiped, and the milkers are required to cleanse their hands and put on clean white suits and caps. The first milk drawn is rejected, as it contains many bacteria which have developed in the milk at the orifice of the teat since the

both clean and cool. In hot weather, chipped ice is packed about the bottles to preserve their low temperature until they reach the consumers. Bottling not only prevents contamination during delivery, but also insures to all correct measure and uniform richness.

The milk and cream are delivered in bottles bearing the University name, and the contents are guaranteed to standard as above described, four per cent fat for milk and twenty-five per cent fat for cream.

### FALLING AWAY IN MILK.

EDITOR RURAL WORLD: We must not allow the dairy cow to shrink in milk at any season of the year, if same can possibly be prevented. The early winter is apt to witness a falling off in milk yields.

The best dairy cow is the one that produces the most butter fat every twelve months on the least feed.

Cows do not eat alike nor act alike, and the wise dairymen will make due allowance for all peculiarities.

Keep a cow waiting for her feed or to

### DAIRY WISDOM.

A cow must be a hearty eater to be a good producer.

Driving cows in a hurry is a money losing operation.

A scrub farmer keeps scrub cows.

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duces the most butter fat every twelve

months on the least feed.

Cows do not eat alike nor act alike,

and the wise dairymen will make due

allowance for all peculiarities.

Keep a cow waiting for her feed or to

be milked and she worries, and a worry-

ing cow is not profitable. Be on time

with milking and feeding.

Farmers who think the dairy methods

of their fathers good enough for them

had better not attempt dairying in these

days. Up-to-date dairying only is profit-

able.

Select the cows for a special purpose.

A man starting a cotton factory does not

purchase machinery for manufacturing

woolen goods. If you expect butter from

cows secure butter-producing cows, not

cheap ones.

In many cases a man may have good

cows and not know it, because he has al-

ways fed them just enough to get a fair yield.

Before condemning a cow, infor-

mously test her by increasing the quan-

tity fed.—Farm and Fireside.

### DAIRY NOTES.

THE CREAMERY A SUCCESS.—The

management of the Ash Grove Creamery

is to be congratulated with the success

which it is having just now. They re-

ceived 25 cents per pound for butter last

week, with orders to ship all the factory

make. We also hear that the farm-

ers are satisfied with what they are mak-

ing out of their milk.—Ash Grove, etc.

### CLOVER AS A FORAGE CROP.

Clover may occupy the highest place in

the list of forage crops. It is alike valua-

ble for milk, meat and wool production.

The large amount of the vital nutrient,

protein, which it contains, is what gives

the high feeding value. The grain crops

are valuable mainly because they contain

12 to 14 per cent of the protein nutrient.

Straw is of little value because of its low

protein content. Clover may cut at full

bloom and properly cured contains as

much protein as grain, and more than

any of our common fodders, as Timothy,

mill, prairie hay, or corn fodders. The

protein and other nutrients in clover hay

are also more digestible than those in the

fodders named, and when clover hay is

fed to stock they are capable of utilizing

more of the food for vital purposes than is

the case with any other forage. When

clover hay is fed less grain is required to

make a balanced ration. To illustrate: If

two cows were fed equal amounts of timo-

thy, it would take about 200 lbs. of bran to

make up this difference in protein. The

large amount of vital nutrients in clover

hay furnishes the necessary material for

milk production and for the muscular de-

velopment of young animals.

### A NEW CHEESE FACTORY.

This week's "Republican" has to report that

the cheese factory at this point is now

inclosed, the finishing touches on the in-

side being done and a coat of paint going

on. It is expected that the machinery

will arrive this week and that it will at

once be placed in position. Things are

moving along in a business-like manner

about this venture.—St. Clair County, etc.

Republican.

### DAISY REAPER.

MCCORMICK

DAISY REAPER.



## Live Stock.

### COMING SALES.

Feb. 14.—David Jay and F. H. Winke, Williamsburg, Iowa. Shorthorns.  
 Feb. 15.—A. Countryman & Sons, Lanesboro, Ill. Shorthorns.  
 Feb. 16.—J. L. Fenton, Panola, Ill. Polled-Chinas.  
 Feb. 22.—Oliver Whitteman, Blackville, Ill. Sale at Stronghurst. Polled-Chinas.  
 Feb. 23.—H. H. Harris and J. T. Moreland of Marshall, Mo. Sale at South Omaha. Galloway cattle.  
 Feb. 26.—L. M. Monroe & Sons, Smithton, Mo. Standard bred saddles and harnesses, mucks, jennets and Poland-China hogs.  
 Feb. 27.—C. A. Stannard "Bunny Slope," Emporia, Kan. Sale at Kansas City, Mo. Herd.  
 Feb. 28.—T. F. B. Sotham, "Weavergrace," Chillicothe, Mo. Sale at Kansas City, Mo. Herefords.  
 March 1.—R. D. Dickson, Marissa, Ill. Public sale at from 1½ miles from Lanesboro Station. Jerns and Recorded Fifercheron stallions.  
 March 1.—W. E. Van Natta & Son, Fowler, Ind. Sale at Kansas City, Mo. Herefords.  
 March 2.—Scott & March, Belton, Mo. Sale at Kansas City, Mo. Herefords.  
 March 6.—C. M. Barclay, West Liberty, Iowa. Shorthorns.  
 March 14.—E. F. Wilson, Neoga, Ill. Herefords.  
 March 15.—R. B. Hudson & Sons, Carrollton, Mo. Aberdeen-Angus.  
 March 15.—F. W. Mumford & Sons and W. T. Tufts, Carrollton, Mo. Angus cattle at Kansas City, Mo.  
 March 22—Wallace Estill, Estill, Mo. Aberdeen-Angus.  
 April 11.—John D. Dawsy & Co., Atchison, Kan. Shorthorns.  
 April 12.—W. P. R. Slaughter, Salisbury, Mo. Herefords.  
 April 19.—C. Bigler & Son, Hartwick, Shorthorns.  
 April 19.—Tom C. Ponting & Sons, Moweaqua, Ill. Herefords.  
 April 25.—M. M. Armour, Funkhouse & Sparks, Kansas City, Mo. Herefords.  
 April 26.—E. Logan Chappell, Mt. Leonard, Mo. Walter Waddell and Thos. Sawyer, Lexington, Mo. C. B. Smith and N. W. Leonard, Fayette, Mo. Herefords. Sale at Kansas City, Mo.

### MISSOURI'S TUBERCULOSIS QUARANTINE.

There is some confusion in the public mind as to the full scope, intent and purpose of the tuberculous quarantine regulations adopted by the Missouri State Board of Agriculture at a late meeting of the Board.

So it is assumed that the regulations prohibit the shipment into Missouri of milch cows for dairy purposes. A telegram from Secretary Rippey of the State Board to L. W. Krake, Assistant General Manager of the National Stock Yards, Ill., states that Missouri quarantines against breeding cattle on account of tuberculosis, not against milch cows. As a consequence, dairy cows received at the National Yards can come into Missouri without being tested.

#### DOES IT PAY TO GRIND FEED?

Editor RURAL WORLD: Many farmers ask the question does it pay to grind feed? My answer is in the affirmative, if the farmer will do his own grinding, as all land owners can do. For renters who move from place to place I do not think it would be so profitable. Sweep mills are so cheap now that those who have no other power can afford to have one. And from experience I know that where one's wife is raising from 300 to 400 chickens a year and probably 100 turkeys it takes some ground feed to run them. Just think of the time it takes to hens up and go from four to seven miles to mill to get feed ground, let alone the toll taken, which will soon pay for a mill. One can grind the feed almost in the time used in getting ready to start to mill. One does not need to shell the corn for the smallest chicks. Of course there will be some cob that will not be eaten, but chickens and turkeys have plenty of time to separate it. For old stock and young colts, calves and pigs the feed mill is almost indispensable.

I have a few calves I am wintering on ground feed and clover hay and they are taking on fat equal to older stock. We often read of the experiment made at the experiment stations in which manure was found in ground feed over the shelled or ear corn, but I have satisfied myself that grinding pays and pays well. One can teach young stock to eat the meal that would not and could not eat either of the others. We sometimes run out of meal, then try to feed shelled corn until we can grind again, but the calves refuse to eat it.

My experience may not be of any benefit to your many readers, but experience is the schooling that counts, and if all contributors would give this rather than theory, we would reap more benefit from our reading. I am not as old as many of the contributors of your most valuable paper, neither have I farmed all my life, but I have learned some things about farming by reading the RURAL WORLD, and many more could be benefited by the same means. During its existence from 1848, the year of my birth, it has solved many farm problems.

Davis Co., Io. JOHN H. CURL.

#### CARRYING CAPACITY OF A FARM.

Editor RURAL WORLD: Referring to an article in your issue of Dec. 25, on "Cattle Carrying Capacity of a Farm," I would like to hear from some of the readers as to the best crops to take cattle through the dry season after timothy has gone.

H. L. LAUGHLIN.

#### TEST FOR TUBERCULOSIS.

Illinois Stock Men Insist That It Made Compulsory.

the dry summer months. This method gives the farmer, as near as possible, absolute control over the unfavorable conditions which may arise. It makes it possible to employ the corn crop for summer feeding. Careful investigations have shown that under ordinarily favorable circumstances we may expect from 100 to 150 pounds of beef for each acre of pasture. This estimate will vary greatly, depending upon the nature of soil, character of season, etc. Equally reliable data indicate that we may expect on an average at least double this increase in live weight from one acre of corn. We may therefore by a judicious use of corn decreased by nearly one-half the area devoted to pasture on any given farm.

Your correspondent may not have a silo, in which case he may grow fodder corn to be fed out during the dry weather and short pastures of summer. He will do well to plant this rather thick to insure small stalks and small ears. If he can do so, it will be better to plant this in drills about three feet eight inches apart and the kernels three inches apart in the rows. Plant liberally and if there remains some not needed for summer feeding cut it and use for winter roughage.

In all sections where alfalfa can be grown it is also a valuable crop for summer feeding and can be cut three or four times in one season.

Your correspondent is located in a region where cow peas have proven of inestimable value as a forage crop and as a renovating crop for worn out or thin soils. Cow peas will grow on poorer soils than clover and seem to be able to withstand the hot, dry weather better than almost any other crop grown in this section. The exportation of slaughter stock should be traced as shipments from the Argentine Republic. Not one head of slaughter stock or stock on the hoof out of the several thousand received in 1898 came from the United States.

"I wish to call the attention of our cattle and sheep raisers to the fact that, while the United States has no refrigerator ships, plenty of ships can be chartered to bring good slaughtered stock here.

Horses and mules, which come in large numbers, reach this port in excellent condition without loss of weight, and it is to be presumed that the same would be true of slaughtered cattle. It is stated that imported slaughtered stock killed here gives better meat than even the live stock of the colony."

#### LIVE STOCK SECURITIES.

(A Paper by A. E. Derigues, Read at the National Live Stock Convention, Fort Worth.)

The basis of all business is confidence. That word as applied to men, governments, or as between nations, is the key to it all. In these times of great uncertainty, it is safe to say that 75 per cent of all transactions are carried on borrowed capital. In other words, the bulk of the money of this and other countries is in the hands of a few, while the forms of business are in great variety in a multitude of hands. This being true, a business will prosper or not as it finds favor in the eyes of controllers of money, the capitalist looking at the proposition from the basis of intrinsic value of the property and from the points of view of conductance (first) in the integrity and (second) in the ability of the men in control of the undertaking. Value, integrity, ability—these three words are the key to it all, the rest is simply detail. Live stock is considered capital on these same standards just as any other security. In the word "value," depreciation and risk are included. You will acknowledge that the great volume of money is centered in the large cities like New York, Boston, Philadelphia, and further West, in Chicago, St. Louis, etc.; also that in London, Paris and Berlin, capital has been collecting through centuries. The problem is and always has been to get the accumulated idle capital of the money centers into the country where it is needed for legitimate purposes. The live stock industry is one that requires considerable sums of money, but it is a business of so many different classifications and values that in past years capital has been collected through centuries. The problem is and always has been to get the accumulated idle capital of the money centers into the country where it is needed for legitimate purposes. The live stock industry is one that requires considerable sums of money, but it is a business of so many different classifications and values that in past years capital has been collected through centuries. 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**Horseman.**

Terre Haute is now a member of the Grand Circuit and will give her meeting Oct. 24th to 26th, the week preceding the St. Louis Fair. The Terre Haute meeting is the last one in the Circuit, and if the St. Louis Fair Directory are right they will try to make connection with the Grand Circuit, and have it include the St. Louis Fair Association, simply adding it to the list, and offering the proper passes for the meeting. There is no doubt the St. Louis public appreciates well conducted trotting meetings and will give such a one an immense attendance.

L. E. CLEMENT'S GOSSIP.

As a progenitor of brood mares Nutwood was the greatest sire that ever lived. He now stands credited with the dams of no less than 215 performers (20 trotters and 21 pacers), which is seven more than the daughters of any other sire have produced. They produced no less than eight of the new 215 performers of 1899 (six trotters and two pacers). The daughters of no other individual sire produced one-half as many. When it is known that in all brood mare history only 14 sires have got, in all, the dams of as many as ten 215 performers, the exhibit of the Nutwood mares becomes wonderful.

H. H. Parish's advertisement of Percheron horses will be found in this issue. A representative of the RURAL WORLD has visited his farm and seen his stock and declares it to be of superior quality, all rich in the blood of old Brilliant, formerly owned by the late M. W. Dunham. There are stallions, brood mares and fillies of different ages of fine style and action that will be put under the hammer. It is a closing out sale on account of Mr. Parish's failing health, and as the horse business is now looking up, and the market very active, it is a good time to purchase. Read carefully the advertisement on this page, make a note of the day of sale and be present to buy a bargain.

Missouri is fast coming to the front as a horse breeding state. There has long been an idea in the east, and it yet prevails there, and even among the buyers from Europe, that if they want to get first-class horses they must immediately he away to Kentucky, and that is the only state in which they can be found. The Kentuckians have appreciated the full value of printers' ink, and they have never failed to use it on every possible occasion. They have been liberal advertisers of the merits of their horses, and those merits have been spread far and wide. Missouri breeders have been reluctant to advertise, and hence this great state has been overlooked by purchasers, notwithstanding it has some as good breeding establishments as are to be found in America. No business can flourish if its light is kept under the bushel. The breeders of fine horses must come to the front and keep to the front. They must use more printers' ink. They must come to a better appreciation of its value.

It is not pleasant to speak of one's own merits, and it is not justifiable, unless it is to set facts properly before the public. Very many horsemen seem to think that to reach horsemen they must advertise in an exclusively horse journal, forgetting that the RURAL WORLD had a department devoted to the horse for more than half a century. It has always had a warm place, and a prominent place, for the most useful of all our domestic animals, and on account of that faithful devotion to this noble animal, it has tens of thousands of readers devoted to the horse industry. It makes the bold challenge to compare lists of paid-up subscribers with any horse journal published in America. It has faith in its contention that it can do more good for those who want to reach horsemen than any horse journal. It makes this bold statement not in opposition to horse papers, because they are all right, and are doing noble work, but because the RURAL WORLD has been so much longer in the field, and because it undoubtedly has twice as many subscribers as any horse paper published.

Nims and Bratton write the RURAL WORLD that the entry list of our Sixth Special Blue Ribbon Sale, scheduled for the week of Feb. 12, is a "hummer," and we will round out the first half-dozen of our special auction series with a record-breaking sale, which we know will be satisfactory to the buyers and remunerative to our consignors.

These we accepted, we will sell in the National Pavilion a choice consignment of the highest class of park and coach horses, a special line of roadsters of high road qualities and an array of splendid specimens of speed, such as Prince Welles, 2:17%; Tom Powers, 2:14%; Harry Wade, 2:15%; and Hippolite, 2:20% represented.

In the show ring classes Frank Platter of Chillicothe, Mo., consigns his great mare Guelphina, by Guelph; McBrayer Bros. send Alfred Aaron, by Col. Lillard, and John Lyons presents the coming regent of the blue ribbon arena, the gray mare Holly Queen.

The horse and mule department of the National Stock Yards is on the boom. For the month of January, 1900, the receipts of horses and mules here reached the unprecedented aggregate of 23,736 head. This magnificent showing smashed all local and national records for any one month's arrivals. The previous high-water mark was held by the Chicago yards, with 17,732 head, received in the month of March, 1897.

**YOUNG TROTTING STALLIONS SCARCE.**

A prominent Kansas horse fancier, after returning from a trip extending through Illinois, Indiana and Ohio, tells the writer that he met numbers of buyers looking for first-class road horses, but that few were buying owing to scarcity and stiff prices asked by sellers. This gentleman says that desirable stuff of any sort is extremely hard to find, good young stallions being especially difficult to locate, and when found are priced "near out of reason."

The writer is not so certain of the last statement, as, during a week's trip among the representative farms of Kansas and Missouri, we quickly learned that good young stallions are as much of a curiosity as 2-15 trotters. We do not believe that top figures have anywhere been reached for gilt-edged young stallions. If any of our readers hold to a different opinion, will they kindly point to a young stallion that is desirable from every point of view that cannot be sold at a good long price? Trotting-bred stallions possessing youth, breeding, speed, size, style, substance, etc., are the "hot stuff" right at present.

L. E. CLEMENT'S GOSSIP.

Editor RURAL WORLD: Last week I looked at the track at Nevada, Mo. The association has reorganized with W. G. Lemen as secretary. The ground is under the management of Lafe Anderson. The track was put in shape last fall, the soil well distributed, and the turns mulched with coarse manure. The track will be in better shape in 1899 than ever before. Here I found in his paddock Nutmeg, 2:17%; a three-year-old filly by Sellano, son of Dictator; a colt by Eggelotte, son of onward, and a colt by Nutmeg, all out of an inbred Wilkes mare. The Nevada folks will give an early meeting, probably the last three days of July and the first three of August.

The Market Fair Association at Carthage have yet three years under their old lease, but have notified the owners that unless they will extend the time ten years, it will be tied up and nothing done, as no meeting can be held without \$1,000 being expended on the track and about \$4,000 on buildings. I think the concessions will be made. Frank Haren of Carthage has bought a lightning strike for a road driver. He can speed very fast for a few blocks and possibly for a longer distance. Nothing is known of his antecedents. He is a little brown fellow, handsome as a peacock.

John G. Callison, owner of Walnut Boy, has sold Noble C. to low parties. He will soon appear as a bob-tailed English high-stepping "what is it," and he will make a good one. I also understand he has sold his roan stallion Dazzler, 2:26%, Wellington. I do not know where he goes.

On Tuesday, Jan. 29, the Spian-Newgass sal opened up, and Missouri horses topped the sale. This is beginning to be common and attracted little attention. Hastings, 2:23%, brought \$1,860, and Jatan, 2:18%, a five-year-old gelding brother, brought \$1,400. Like Horseshoe tobacco tags "seven Missouri geldings are valuable." I see W. E. Billups, of Memphis, Mo., pair \$700 for five-year-old mare. Some sales are educators. Tuesday morning I looked in on the grand stallion Kankakee, a sixteen-year-old boy, who has the care of him, was brushing his rich chestnut coat and wondering if he would ever get the dead skin clear. The horse was loose in his stall, and as I entered turned the broadest, bluntest horse face I ever saw in my direction. Mr. Knell finds him a pleasant driver and road horse.

I wonder which horse Mr. H. L. Lefavre staked his money on at Denver June 20, 1898, when the three-year-old filly, Florence, B., romped away with the 2-15 class in 2:18%, 2:20%, 2:19%, with nine good ones behind her. Some men can never forget a loss under such circumstances. So far as Blue Bull is concerned, I only stated what every horseman who has seen a table compiled in the last five years knows to be a fact, undisputed. A man who needs to be shown what is a matter of record, and commonly accepted, belongs to the class of men who will not see, therefore hopeless. I have never seen a horse or a man who was worth killing that did not have some enemies, but there never were but few horses that had the enemies that the old Indian pacer had. Mr. Hiser, who owned Kankakee, says any man who is fit to enjoy the company of a high-bred lady, can get along with Kankakee and his colts, but a bull puncher, that believes in winning by brute force, will come out second best every time. Kankakee is so placed that all who come in contact with him love and appreciate him. I hope his Missouri colts will be fortunate. I trust Kankakee not only greater as a sire and progenitor of speed than either Hamblin, Henry Clay, Mambrino Chief or Black Hawk (5), but I am confident that Missouri has at least ten sires that are greater than any one of them, and just as sure that Kankakee is the greatest of the ten. Blue Bull has won his way into second place in spite of the greatest opposition a horse ever met. His sons are out of mares of little or no breeding, and are credited with 115 standard performers, and his daughters have 144, while the producers of the daughters of George Wilkes come next, having passed Mambrino. During the racing season of 1898 Blue Bull and George Wilkes are so close together at the close of 1898 that it will take the official count of the Year Book to determine which has the lead. Mambrino Patches is displaced for good as certainly as is American Star, who led for years. It has faith in its contention that it can do more good for those who want to reach horsemen than any horse journal. It makes this bold statement not in opposition to horse papers, because they are all right, and are doing noble work, but because the RURAL WORLD has been so much longer in the field, and because it undoubtedly has twice as many subscribers as any horse paper published.

Nims and Bratton write the RURAL WORLD that the entry list of our Sixth Special Blue Ribbon Sale, scheduled for the week of Feb. 12, is a "hummer," and we will round out the first half-dozen of our special auction series with a record-breaking sale, which we know will be satisfactory to the buyers and remunerative to our consignors.

These we accepted, we will sell in the National Pavilion a choice consignment of the highest class of park and coach horses, a special line of roadsters of high road qualities and an array of splendid specimens of speed, such as Prince Welles, 2:17%; Tom Powers, 2:14%; Harry Wade, 2:15%; and Hippolite, 2:20% represented.

In the show ring classes Frank Platter of Chillicothe, Mo., consigns his great mare Guelphina, by Guelph; McBrayer Bros. send Alfred Aaron, by Col. Lillard, and John Lyons presents the coming regent of the blue ribbon arena, the gray mare Holly Queen.

The horse and mule department of the National Stock Yards is on the boom. For the month of January, 1900, the receipts of horses and mules here reached the unprecedented aggregate of 23,736 head. This magnificent showing smashed all local and national records for any one month's arrivals. The previous high-water mark was held by the Chicago yards, with 17,732 head, received in the month of March, 1897.

Eureka Harness Oil is the best preservative of new leather and the only restorer of old leather. It softens, strengthens, blackens and protects. Use

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on your best harness, your old harness, and your carriage-top, and they will not only look better but wear longer. It is the best oil for leather. It comes from half-pint to five gallons. Made by STANDARD OIL CO.

credit, and has four brothers that are sires.

Missouri will top the list at St. Louis in 1898 at the Louisiana Purchase Centennial meeting. You have fair warning, get ready. Missouri will have her good clothes brushed up and will do as she did at the Columbian Exposition, carry away more blue ribbons than any state in the Union. We don't have to wait until a sire has a hundred in the list to know if he is a great sire or not. Look on the RURAL WORLD's advertising horse page and see if you think Ed Hill, Jr., is brother to Maud S., out of a daughter of Nutwood, who leads all sires of extreme speed-producing daughters, and she out of a daughter of Woodford Mambrino, and she out of the greatest speed producing dam by Abdallah (5), and she again out of the first great brood mare at Woodburn, Black Rose, by Tom Teeter (pacer), the mother of trotters.

Jan. 28, 1900. OZARK.

**MAMBRINO, JR., MAKES HIS BOW AGAIN.**

Editor RURAL WORLD:—

Last all hurrah for Whirlwind Mc. And plod him in cold water.

His record—a half-mile track—2:17%.

This morning I got a picture of the young sire Velocidad, by Electioneer, a son of Ethan Allen. There comes a strong dash of the "sangre asil" from a daughter of Imported Australian, good for well, fix this up to suit yourself; with a finishing cross from the fountain head of the family, old Sherman Morgan himself. Mr. Billups will keep Whirlwind Mc. 2:17%, before the horse-loving public without stint. You may confidently look for an "ad" from that quarter. It was a bold and daring stroke of business to get the great Baron Dillon, 2:12, as he did last year. It is a great advertising "card" for any stock farm in the land to be able to make such an announcement. It will invite comparison with the present Premier, and, if he stands the inquisition successfully, it will redound all the more to his own credit and to the good judgment of his astute owner and to the emolument and pleasure of his early and persistent patrons, who will chase around patting themselves on the back, chattering lustily, "great in Whirlwind Mc. 2:17% and I, even I, am his prophet!" That's about the "size" of it and gentlemen horsemen who want to be "in it" will be seen making early and often pilgrimages to the "shrine" of Whirlwind Mc. 2:17%.

Billups Stock Farm is a Missouri institution, lying, being and situated in Scotland County, being some miles nearer Milton, Iowa. The latter town is used for postal conveniences and this fact creates in the opinion of great many readers the impression that the horse is owned and stabled in Iowa. We don't desire to pluck one laurel from the brow of our sister state, for she's a daisy, but it is getting to be pretty generally known where horsemen most do congregate that Missouri horses are about "it" and we want credit accordingly.

Honest John Atkinson, of Jack, Straberry, and Joe Patchen fame, will be "master of horses" in the training department, same as last season. The "stable" will consist of Whirlwind Mc. 2:17%; Lady Dillon, 2:24%; Straberry, Jr., 2:24%; with a number of green ones of elegant breeding and decided promise. A son of Conrad, brother of Antero, a son of Joe Patchen, and numerous others, will be "sampled." The "farm" expects some eighteen or twenty young "Dillons" this spring, which, with anything like ordinary success, will prove a veritable "gold mine," vastly more profitable than any "chances" in the "Klondike." This writer is modestly proud that he has a prospective Dillon and doesn't feel at all badly over his blooming prospect of a young "Allerton." If no disasters overtake my expectations I will take great pleasure in heralding the advent of these "royal impes" later in the season.

MAMBRINO, JR.

Peaksburg, Mo., Jan. 19.

FEEDING GRAIN TO MARES AND COLTS.

Several articles have been published,

says the "Horseman," dealing with the feeding of grain to colts and brood mares and the platitude may be reiterated that a breeder cannot invest his money to greater advantage than to buy grain with it and feed it to his colts and mares with the object in view of keeping on the youngest's bones the flesh that is foaled on them. It is a Scotch proverb that "Horse's best flesh is the flesh that is born with him," which means that if a colt is modestly proud that he has a prospective Dillon and doesn't feel at all badly over his blooming prospect of a young "Allerton." If no disasters overtake my expectations I will take great pleasure in heralding the advent of these "royal impes" later in the season.

MAMBRINO, JR.

At Everett, Cass Co., Wed., March 7, 1900.

FOR SALE—

PERCHERON HORSES

OF EVERETT, PEAKSVILLE, MO.

WANTED—

TROTTING BREED OR COACH STALLION.

W. H. PARISH.

Everett, Mo.

FISTULA, POLL EVIL

and all blennishes on horses cured with HAMER'S SURE CURE or money refunded.

Send 5cts. in stamp to pay postage on descriptive catalogues in all styles, sizes and double strength.

John H. Hamer to cure from direct consumer at wholesale price. We are sure you mean

KING HARNESS COMPANY, Mfrs.

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FOR SALE

Royal Belgian.

Importing this breed

from Holland.

Horses only largest and heaviest bones, tall, strong, and live best.

Buyers wanted.

Address X. MASSON,

Minooka, Wood Co., Ill.

FOR SALE—

One of the best Jacks in the State;

black, coal black, very heavy bone, six

and one-half hands high (jess); also

a Monroe saddle stallion.

J. D. BATES.

Santa Fe, Mo.

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One of the best Jacks in the State;

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Santa Fe, Mo.

## Home Circle.

Written for the RURAL WORLD.

MY VALENTINE.

Of all the year this is the day  
When Cupid holds his roundelay.  
With practiced skill he aims his darts  
At hosts of unsuspecting hearts.  
One of these darts my dearest friend,  
I did myself to Cupid send;  
I'll let you know he's maneuvered,  
For in love's potion twas baptized,  
So in the heart to which it flies,  
Love for the sender will arise.

If thou wouldst know into whose heart  
I had young Cupid strike this dart,  
I'll tell thee, dear, 'twas into mine.  
So thou wouldst be my Valentine.

FRANCES PERHAM CARSON.

Written for the RURAL WORLD.

JUST A LETTER.

When a woman gets to be past fifty years of age, and grandmother to several bright, healthy and hopeful little people, she begins to travel in a circle, and the longer she lives the narrower this circle grows until it finally merges into that oblong, deep and narrow space where the physical structure is no more subject to the demands of a restless soul.

In earlier life our children are our hope and inspiration, but approaching age brings the grandchildren so close to the mother heart, that we wonder if the real children of our own flesh and blood were even quite so dear.

Sunny childhood and wintry age—an antithesis which it seems hard to reconcile, but little children nearly always love old folks, and normal old people always love little children.

One other thing have I thought out while going my narrow round, in the circle of which my grandchildren are the heart and center, it is, that elderly people do not like to be left alone very much.

Not is it good for them to be too much out of the world, and away from other folks. Elderly people are prone to looking backward, not in the Edward Bellamy sense, but in the sense of studying too deeply the long ago finished lessons of past years. Last Sunday evening a dear old gentleman who leads a lonely, and therefore a reminiscent life, said to me: "I love to sit by the open grate and watch the fire pictures, and they carry me back—oh! so many years. I review all my days from the time I was fourteen until now."

"Ah, yes," thought I, "and your heart grows older and sadder, and colder, by years, every time you do this." As for me, give me a rollicking romp with my grandchildren, who tenderly and with hearty comradeship call me "Gram," to all the fire light reflections ever dreamed of. Better a narrow life with the sweet white souls of little children to make sunshine in it, than all the cold high pinnacles ever climbed by fate hunters where the still loneliness of vast views, will make the brightest spirit sad, and where the soul sorrows dumbly for companionship yet cannot diagnose the cause of its suffering. The little circle for me, with a few loyal friends near the outer edge, then my darlings in the center and out beyond the great world which knows me not, nor cares for me. Physicians say that the terminus of my road is not very many years afar, and so I walk happily in my little circle with those who are my own as I am theirs. The terminus has no terrors for me, it will not be myself that will lie in that deep oblong space, it will be only the house I once lived in. On sunny days the grandchildren will bring flowers and put on the mound, and in their hearts the memory of "Gram" will live for years to come.

Perchance I shall be permitted to watch over their lives, to ward off dangers, and to lead them upward in spirit, even as I strive to do now, when the little circle will have ended and the broken links in the family chain must remain broken, until eternity shall supply and weld each missing one in the golden circle of immortality.

I read the Home Circle letters with pleasure, glad to see each new face, and to welcome back the tardy ones.

The RURAL WORLD is to me something more than merely a journal, it is the warm, pulsating heart of many writers. It gleams and glows with life and intelligence, it speaks in varying tones of many things, it is glad with the voices of the present and sad because of the silence of voices that will be heard on earth no more. It stands in optimistic sunlight, speaking words of truth and good cheer, but the shadows lie thick about its foot-steps, for along its path lie many graves of the writers we have known and loved during the many years that we have sat among the "Home Circle" company.

Some Tested Simple Remedies.—Diarhoea, which frequently occurs among poultry during the warm weather, and which, if neglected, terminates in cholera, can be checked by putting blackberry root tea in their drinking troughs or, in advanced cases, 10 to 15 drops of laudanum. Sulphate of iron (powdered form) is an excellent tonic and blood purifier. Use one teaspoonful to the gallon of water. It may be given any time of the year and in my opinion will add to the contents of the egg basket.

Converse with your children as you would with a neighbor; and don't laugh if their ideas are mode of expressing them do seem foolish to your wiser head. The child treated with respect always appears most intelligent; besides you are gaining the child's confidence; without which you can never influence his future life.

MRS. MYRTLE CASTERER.  
Newton Co., Mo.

Short's hand, in fact forced it there and bounded from the room, leaving Mr. Short stupefied and with tears of grateful kindness springing to his eyes. At last he said:

"God bless the youngster; it's evident he's got a good heart and a good mamma."

We will leave Jim for a while, and visit our little lady. In the first place, Perham is her name. It is Christmas morning, and Perham and her mother have seen that everything is in readiness for the children's entrance to the drawing room, which has been turned into a veritable Fairland, with its interesting bunnies peeping out of the four stockings hanging in various parts of the room—dolls, wagons, books, candy, everything imaginable to delight the childlike heart. Perham at last goes to the piano and strikes the note which makes the children's hearts beat faster, as they stand in the library, waiting anxiously for this call. Baby Nell, being the youngest, heads the line, then comes George, then James, and last comes Clara. Father, mother and Perham did not try to speak, it would have been useless, so they only looked on, joy beaming from their eyes, at each delighted exclamation from the children.

Finally, Mrs. Good announces that it is time for the grown members to exchange Christmas greeting, and the children are told to bring the little tokens that they are going to offer, to the library. Each one has given and received presents, except Perham; she has not received hers from the children. Clara came forward with a dainty handkerchief, which she presented to her sister.

"Clara, dear, and how did you earn this?" said Perham.

Clara put one arm around her sister's waist and, looking into Perham's eyes, proudly said:

"I darned ten pairs of stockings and mamma gave me one pair for doing so." "Dear sister, I accept and treasure your gift, and shall keep my promise." With a kiss she gently puts Clara from her, then calls James. "Why, where is James? George, you come next then, as James is absent."

"Here, Perham, it isn't much, but it was the best I could do."

He handed her a small package which proved to be a sterling silver show horn.

"And how did you earn yours, George?"

"I blacked papa's shoes every day for the past two weeks, and papa gave me one a day."

"Very good, little brother; yours shall be treasured as dear as Clara's, and I shall fulfill my promise to you also." Stooping down, she kisses George's happy smiling face.

"And now, baby Nell, come here. What have you earned for sister?"

Nell, with her bright flaxen curls, tripped forward daintily.

"Perham, I dive no die; I earned it in binkin' papa's sippers to him ever nite, an' he dive me nickle ever time. Isn't it pitiful?"

"Yes, precious; it's very pretty indeed," and Perham hugged the baby tight in set arms. The little gift was a canna cat. "It shall be one of my dearest treasures, pet."

"It seems we will have to call James; George, go hunt your brother, won't you please?" MAUD C. WESTBROOK.

St. Louis.

(To be Continued.)

Written for the RURAL WORLD.  
WE MUST READ.

This is an age of progress, and we who live on farms, isolated from society, must surely be left behind, without the aid of the press. Don't say you are too poor to take a paper, my farmer friends, unless you wish to feel and appear like some relic of a former age. If you chance to appear in society eight or ten years from now, it is a poor farm that will not make enough besides the necessities of life, to pay for one newspaper. It is a duty we owe to our children to give them access to the thoughts of the intelligent, the refined and the good through the newspapers and periodicals of our time. Your neighbor's boys will then never have to go to the city to find company that can talk to them with intelligence.

Editor RURAL WORLD: A difficulty that confronts the farmer's wife is the management of her fowls in that they either will not set early in the spring or they are so persistently broody that she is compelled to keep so many of her "biddies in jail" for setting, when they should be making the best use of sunshine and vegetation to help pay the grocer's bill. A few years ago I was so worried with my hens, they were so broody, but they were such nice large hens that I could not think of parting with them. I decided that a change in some way must be made. The next spring I bought several S. S. Hamburg cockerels. With this cross I was much pleased. The fowls were small boned, but very plump and heavy for their appearance. They were prolific layers, would set just enough and were good mothers. Instead of always having hens shut up, I had eggs enough to pay for the groceries and occasionally a dress for myself or the babies.

I believe it would pay farmers well who keep common fowls to buy each year pure bred cockerels, not necessarily very high priced birds, but good ones. If one wishes to breed for eggs procure cockerels of the non-sitting varieties; if for size get cockerels of the large breeds.

Some Tested Simple Remedies.—Diarrhoea, which frequently occurs among poultry during the warm weather, and which, if neglected, terminates in cholera, can be checked by putting blackberry root tea in their drinking troughs or, in advanced cases, 10 to 15 drops of laudanum. Sulphate of iron (powdered form) is an excellent tonic and blood purifier. Use one teaspoonful to the gallon of water. It may be given any time of the year and in my opinion will add to the contents of the egg basket.

If farmers would give up the use of timothy for making hens' nests and use instead oat or wheat straw, they would not be troubled so much with mites.

What has become of the farmer's fowl, the old-fashioned black Java? It was always healthy and vigorous, from the time

## CAKE RECIPES.

Coffee Cake.—One cupful each of butter, brown sugar, molasses and strained strong coffee, three eggs, one pound of raisins, two cupfuls of flour, two teaspoonsfuls of baking powder.

Fancy Cakes.—Beat three ounces of sugar, four ounces of butter and the yolks of four eggs together. Add four ounces of flour, the grated rind of half a lemon, a teaspoonful of rose water and the beaten whites of the four eggs. Fill fancy cake molds, sprinkle the top with sugar and chopped almonds, and bake half an hour.

Butter Cake.—One half cupful of sugar, four ounces of butter and the yolks of four eggs together. Add four ounces of flour, the grated rind of half a lemon, a teaspoonful of rose water and the beaten whites of the four eggs. Fill fancy cake molds, sprinkle the top with sugar and chopped almonds, and bake half an hour.

Orange Cake.—Two cupfuls of sugar, the name of flour, one-half cupful of milk, heaping teaspoonful of baking powder, four eggs, leaving out one white, the grated peel and juice of one lemon, a pinch of nutmeg. Bake in layers. Put together with frosting made with the reserved white of one egg and grated peel and juice of one orange; sugar to thicken.

Apple Pudding.

Sieve some tart apples and pulp them through a sieve. To one about one-half a pound of the pulp add six ounces of melted but not oiled butter and mix in as much sugar as necessary to give the pudding the desired sweetness; add the yolks of six eggs and the whites of four, whipped. Mix all well together with the apples and beat it very light, adding the rind of a lemon. Cover the bottom of a baking dish with puff paste and pour the pudding into it; bake in a moderate oven half an hour; strew powdered sugar over it and serve.

TO CLEAN MATTING.—Few things can be used to clean matting; salt and soda have been used, but experience has taught that the best way is to have the matting thoroughly swept, and then go over it with a solution of warm water with Gold Dust Washing Powder dissolved in it; it is best to use a wooden cloth, a tablespoonful of Gold Dust Washing Powder to a quart of water is the proportion; wring the cloth almost dry and rub quickly, but the moment the water gets dirty, change it for fresh; follow the wet cloth with a dry one. This cleanse perfectly.

Gentry Co., Mo.

the chick was out of the shell. Fowls of this breed were extra good layers and not persistently broody. They hadn't large combs to freeze in winter. The hawks didn't carry them off as they do the lighter colored varieties.

Vernon Co., Mo. FARMER'S WIFE.

Poultry Observations Made in Iowa.

EDITOR RURAL WORLD: Recently I made a combined business and pleasure trip through Central Iowa. I was much pleased with the country. I was over a good deal of the northern part of Dallas County. It seems to be a fine farming region and well supplied with water, both for stock and home use. The corn crop averaged from 50 to 60 bushels per acre. Other crops were reported as yielding equally as good averages.

Being a "chicken crank," I was most interested, of course, in the poultry farms. Nearly all the flocks of chickens that were not full blood showed that they were well graded. Plymouth Rocks and Leghorns were the predominant breeds. I noted fine flocks of ducks, mostly Pekins, and the turkeys were mostly of the bronze "persuasion."

The quantity and quality of the poultry coops and houses in use and in process of construction show that the farmers of that region appreciate the value of this very important industry. Nearly all coops or hen-houses I noticed had at least one window and showed that light was a thing to be desired for fowls, and this is assuredly a tendency in the right direction.

R. R. FRENCH.

THE CAUSE OF ROUE.

If one takes ordinary precautions, sickness among fowls need never be known, or, at the worst, be but slight. Common sense is a better teacher than books.

The most common and prevailing disease is roue. Roue is troublesome, annoying and dangerous, but one need not have roue in a flock, if due precautions are observed, says the "Country Gentleman." Roue comes from a cold, but fowls should not be allowed to catch cold.

When they were allowed to roost out of doors in trees or wherever a natural shelter could be found, there were but few cases of roue. Fowls do not catch cold by roosting outdoors in either dry or damp air. This is easily understood. They roost as high as they can, which means they get as far away from the damp ground as possible; hence their roosting place is comparatively dry, and they are surrounded simply by either dry or damp air, the latter, of course, if it rains, and neither ever killed a fowl. They are not roosting and sleeping in any draft, and here lies the secret of the whole cause of fowls catching cold, and that is by sleeping in drafty sheds or houses.

Champion Leg Bands are the best; copper 15¢ per dozen, aluminum 20¢ per dozen, postpaid.

W. R. CLLEMENT, Maplewood, Mo.

Barred and White Plymouths, Buff and White Wyandottes, White Leghorns, White Wyandottes.

**TRY  
Allen's Lung Balsam**

**FOR  
THAT  
COUGH**

Mother will find it a pleasant and safe remedy to give their children for whooping cough and croup.

All Druggists Sell It.

Ack for ALLEN'S LUNG BALSAM and save

you \$1. Price, \$6.00, and \$1.00 a bottle.

Send for free Catalogue.

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"Home Treasury" Steel Range.

A \$45 6-Hole \$24.90

Her resistor and closet as shown. Warranted for 5 years.

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**POLAND-CHINAS.**

**VIVION & ALEXANDER,  
FULTON, MO.**

Breeders of the best strains of Poland-China hogs. Registered Jersey cattle and Poultry. Young stock for sale at all times.

**Kern Brothers, SHELBURNE, MO.**

**POLAND-CHINA HOGS and Fancy**

Herd headed by "Golden Egg" Sows.

Choice stock for sale. Also 100 Peck Ducks.

Prices reasonable. Write us.

**DO YOU WANT**

The best Poland-China blood sired by U. S. Chief Tecumseh 2d.

100 choice sows, 250 gilts, and 1000 pigs of the best

sows of the breed.

May and June pigs, other

sex, 12 weeks they last.

L. B. SPIDEL BREEDING CO., St. Jacob, Ill.

**BIGGEST BARGAIN OUT.**

For sale or trade, Extra! I know, one of the best

sons of Chief Teum. 2 years old, will weigh 700

pounds. Will exchange for large Poland-China

sows. Write.

**POLAND-CHINA BOARS for Sale.**

Jas. U. Massier, Kinloch, Mo., has 5 pure

bred Poland-China Boars ready for service,

which will be sold at reasonable prices. Pedigree and prices on application.

**POLAND-CHINAS!**

Choice sows and gilts, all ages, fat and thin, either sex, sired by Victor M. Jr. and Black Chief. Well bred and unbred. Prices within the reach of all. Write or exchange Black Chief for boar equivalents.

J. C. COOPER, Swainswick, Illinois.

**"OAKWOODS" POLAND CHINA AND BERKSHIRES FOR SALE!**

My spring boar and choice fall

60 sows and gilts bred to four boars.

\$15 to \$25.00 each to \$2.00 each. All stock

represented as represented.

H. S. WILLIAMSON, Centralia, Boone Co., Mo.

**POLAND-CHINAS**

Gilt edge

choice stock, registered and individual mated.

R. L. ORGAN, Carmi, White Co., Ill.

**DUROC-JERSEYS.**

**Rose Hill Herd of Duroc-Jersey Hogs.**

A choice lot of gilts bred for March pigs and

spring hogs for sale; all from large pro-

ductive sows. Prices right. S. Y. THORNTON

Blackwood, Cooper Co., Mo.

**Duroc Jersey Hogs in farrow, large and growthy**

and easily bred. J. W. KILIAN, Shelbyville, Ill.

**Duroc-Jerseys**

Of the best strains. Everything guaranteed as

represented. S. D. RICHARDS, Starwood, Mo.

**Duroc Jersey and Berkshire Hogs!**

Extra breeding. Satisfaction guaranteed or you

may return at my expense. S. C. WAGNER, Pass, Ill.

**SUPERIOR BERKSHIRE SWINE!**

All ages, cheap.

J. E. BURGESS, Macedonia, Phelps Co., Mo.

**IMPROVED CHESTER WHITES**

For sale. 5 good July male pigs.

50% off choice stock and will be sold at

reasonable prices. Write me.

S. F. BROWN, Ashmore, Coles Co., Illinois.

**HOG TAMER IMPROVED FOR 1900!**

Never Root.

Makes nose like out.

Once done always done. Has reversible (T-shaped)

scrub and self-adjusting

to guages to suit size of

worms.

W. J. SHOBY, (Box B-151) Lewistown, Pa.

**STEAM FEED COOKER**

Older—Cheaper—B

1500 sold. Send for our trial

scrupulous formular & descript.

J. M. PURINTON & CO., Des Moines, Ia.

**COOKED FOOD**

Each half dozen, feeds

such animal energy. The best way

to cook it is with the

IOWA FOOD STEAMER,

a new invention, all kinds of

grits and vegetables. Send for catalog & price. Order

now. The sample and valuable information free.

GEO. H. LEE CO., OMAHA, NEBRASKA.

**CATTLE AND HOGS**

and all kinds of live stock will produce

better results if fed green feed. The

small pig and the dairy cow need more

protein than grain.

Gentlemen of the Illinois Cattle Breeders' Association—In calling your attention

to how best care for sow and pigs until

six months old, I do not mean to convey

the impression that I have observed

things unseen by others, or that you Illinois

breeders may not have seen and done

the very things about which I wish to speak.

The fact remains, however, that

none of us do as well as we know; and

**The Pig Pen.**

ST. CLAIR COUNTY, MO. HOG NOTES.

It is for the purpose of attempting to impress upon you the necessity of doing some things about which you are perhaps already informed that I come before you to-day. Thirty years as a breeder of Poland-China swine have afforded opportunity for the study of some phases at least of swine breeding. During this time I have become impressed with the fact that all of us can improve our methods of caring for the sow and litter. If I hint at some things that you are doing which should not be done, or things that you should do which you are not doing, and succeed in getting you to feed and care for the sow and pigs the best we know, then this paper will not have been in vain.

Two weeks ago I met in town our leading hog buyer and he asked me if I had any hogs for sale. I told him I had 21 that was holding for four cents. He asked if they were all of my own raising and on being told that they were he said that \$6.00 per hundred was the best that he was giving, but that he would take my hogs for four cents, and for me to bring them in the next week. He did not think it necessary to see them before buying.

He had some hogs in the pen for which he paid \$1.50 per hundred, and said it would be hard for him to get his money back. I think it doubtful if he did, for they had chin whiskers and tails a foot long and looked like pieces of rubber garden hose. Even though it takes twice the amount of feed and length of time to get such hogs to market, many here will not pay any more for well bred hogs than for those of the common grade. I have met many men here and elsewhere who say they want the common or razor-back hogs as they will rustle for a living and are less liable to disease than are pure breeds. Those who think thus are certainly not acquainted with both classes of hogs. I have had both, and have noticed that the razor-backs are subject to disease as are the pure breeds, and have noticed, too, that when in the heat of the day the well-bred hogs are not hustling for their living, the razor-backs are lying in the shade, probably in a hollow log. These latter are like some people—satisfied with half a living, no ambition to get more and no love or respect for those who have. Where hog thieves exist the scrub may be the best to raise, as they are fleet of foot and hard to catch.

I believe the scrub hogs are more subject to lice than are the pure breeds, but as to lice I take the same stand as does Dr. Heaton (being a Presbyterian I feel safe in calling a Methodist "brother") in reference to bed bugs. Their continued existence is the result of pure laziness. In fighting bed bugs I found a remedy for hog lice. When I bought my farm the house had several windows broken and the places stopped with old rags or bed clothes, a sure indication of bed bugs and shiftless men. If there was one bed bug in the house there were a gallon. So while waiting for my wife to come with the furniture I hired a man, purchased three cans of lime, a scrub brush, mop, kettle for hot water, one-half gallon of carbolic acid and six pounds of sulphur. We worked hard two days. That was four years ago, and now my wife offers \$5 reward for a bed bug found in the house and I offer \$1 each for hog lice found on the place.

I find that on wet days a hog will, if not prevented, destroy more grass than it will eat. When I stop anything I am doing and go for a walk, the hog will follow. It is a poor excuse and I am going to try the hog tamper. If that or nothing else will stop the rooting, I will quit raising hogs. We are six months old, and I have my doubts at any time in their lives.

In conclusion will say that sow and pigs should have the run of a grass lot and when the pigs are about three months old they should have the run of a larger pasture; for exercise is very essential to develop bone and muscle and will help them to digest what they eat and give them good appetites to begin with. The pigs should be kept free from lice as well as from mud and other filth. The cleaner we keep our pigs, and the cleaner we keep their feeding and sleeping places the better they will do. Some may say why not add a little milk to the ship stuff for the pigs. I never feed what I haven't got.

**WANTS TO KNOW ABOUT TAM-WORTHS.**

A RURAL WORLD reader writes thus to the Fulton, Mo., "Gazette":

I consider a good hog one of the most profitable animals the farmer raises. Every farmer can and should raise a few hogs. I can take one good sow and raise enough pigs from her to make all the meat and lard I need for my use and sell enough to pay my taxes besides. I have made more and quicker money from raising hogs than from any other stock that I have raised on the farm.

"Now, as it will soon be time for sow to begin to farrow it is necessary to arrange to save the pigs. About two weeks before farrowing time a sow should have a bed to herself in a good, dry, warm place with straw enough to make a comfortable bed. Wheat straw is the best, cut up. Give her a good feed of bran and oats or oats and bran at least once a day and a little corn at night, the other feed.

"I have saved more and had better pigs from sows that were almost fat, but not corn fat. We should always know when her time is up and keep a close watch on her. Stay with her while farrowing. See that all the pigs get around and suck milk from each teat of the sow so that the milk will flow freely.

"If your sow is cross she will be quiet when you begin to milk her. If she seems chilly tuck the bedding closely around her, spread a blanket over her and stay with her until she gets warm; she will then get still; then you can go to the house and go to bed; she will lie there until morning. Two lanterns hung in a tight house will keep it warm. Feed her nothing except clean well water a little warm for the first 24 hours. For the next days increase the feed until you give her about what she will eat.

"Exercise and sunshine are necessary for the healthfulness of the pig. Don't let them come later than October. Early pigs are all right if you have a good, warm, dry place for them. Arrange to have two litters a year. The fall litter will make your meat and the spring litter will pay your taxes and expenses to all applicants. Write Mr. Haynes and mention the RURAL WORLD.

**BERKSHIRE BREEDERS STAND UP.**

Editor RURAL WORLD: If there are any Berkshire breeders in St. Louis County, near the Frisco Railroad, with registered stock, they ought to make it known in some way, as I don't like to pay express companies four or five dollars express on a hog when I could get one shipped for less than one-half, if it were handled by several companies.

Franklin Co., Mo. C. F. BORBERG.

J. L. PATTON, Panola, Ill., is one of the old-time, tested and trustworthy breeders of Poland-China of the state. He has for many years bought, bred and sold animals of the most popular strains and most approved breeding. He raised a very nice lot of pigs last year and has culled very closely, marketing everything that in his estimation was not good enough to reserve for breeding purposes. February 21 has been selected as a date when he will sell at public auction at his farm near Panola about 50 head of selected sows that will be bred to first-class boars and sold without reserve to the highest and best bidder. It will be a straight, fair sale and no sensational prices need be feared, so arrange your business so you can be present and secure some of the bargains. Write at once to Mr. Patton for catalog. Oliver Whitteman sells at Stronghurst, Ill., the day following. His sale can be easily reached from Panola.

OLIVER WHITTEMAN, of Biggsville, Ill., has been breeding fine stock for several years, especially Poland-China hogs. He has bought and bred the leading strains from the beginning. No young breeder is more respected than Oliver Whitteman. His word either written or spoken is as good as gold. His dealings with the people who have bought of him at public sale or private treaty have been most satisfactory to all concerned. As will be seen by referring to his advertisement in this issue, he will sell 45 head of brood sows at Stronghurst, Illinois, on Thursday, February 25. This lot of sows has been seen by our field man, who pronounces them a vigorous, healthy, well-proportioned lot of sows, of good color, and of great size. Many of the sows have proven extra good mothers, raising good, even littles pigs every time, and all are sure breeders. The doctor call it consumption and prescribe lung specifics. But what the man needs is a medicine to go deep down into the foundation of the trouble: clear the lungs of the worms. The doctors call it consumption and prescribe lung specifics. But what the man needs is a medicine to go deep down into the foundation of the trouble: clear the lungs of the worms. The doctors call it consumption and prescribe lung specifics. But what the man needs is a medicine to go deep down into the foundation of the trouble: clear the lungs of the worms. The doctors call it consumption and prescribe lung specifics. But what the man needs is a medicine to go deep down into the foundation of

## The Markets

**WHEAT**—Cash market—Received, 1,000 sacks and 25 cars local. Lower and a dull, heavy market.

Local and outside milling demand very light. From station, No. 1 No. 2 red soft, 75¢ per bushel at \$14.50; No. 2 red soft, 75¢ per bushel.

No. 3 white, 75¢ per bushel; No. 2 hard sold at 75¢ per bushel.

**COTTON**—Cash market—Received, 200 cars local and 15 cars foreign. Much demand and lower to sell. Offerings made by buyers held off. On trk.—No. 1 at \$14.50; No. 2 at 21¢ per bushel; No. 3 and higher mixed at 25¢ to 26¢, latter asked. No. 2 white at 26¢ and 25¢, latter asked.

**CANOLA**—Received, 50 cars local and 15 cars through. Ready sale for good grades.

Large quantities received from Canada, No. 2 at \$14.50; No. 3 at \$14.50; No. 2 North at \$14.50; No. 2 white at 26¢; No. 3 at 25¢.

**RYE**—Entirely nominal at \$15¢ for No. 2.

**MILLFEED**—Quiet and by no means firm, as shipping has been suspended and importable basis East St. Louis at 4¢ per bushel, 25¢ to 26¢, latter asked.

**PEAS**—Received, 50 cars local and 15 tons through; these are being held off.

**WHEAT**—Heavy and stocky, 14 tons through; not much demand and lower to sell. Offerings made by buyers held off. On trk.—No. 1 at \$14.50; No. 2 at 21¢ per bushel; No. 3 and higher mixed at 25¢ to 26¢, latter asked. No. 2 white at 26¢ and 25¢, latter asked.

**CANOLA**—Received, 50 cars local and 15 cars through. Ready sale for good grades.

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**HAY**—Received, 940 tons local and 14 tons through; these are being held off.

**WHEAT**—Heavy and stocky, 14 tons through; not much demand and lower to sell. Choice timothy and red top do well, but are not largely grown because we have all the hay necessary for horse use, and some to spare, from our meadows of native grass.

We have timber and prairie lands, building stone, coal, etc. While we have schools, churches and other advantages too numerous to mention, we are forced to admit that we are a "jeedie" behind the "toimes." Among a few of the things we need here are men versed in the breeding of fine cattle, hogs, poultry, etc. Of course we know it is a little bit selfish, but we wish some thorough-going, progressive farmers and cattle breeders would come down among us and bring those excellent Durham and Hereford cattle, Poland-China and Berkshire hogs, etc. Don't bring any Jersey cattle, please.

We have a splendid climate. The first snow of the season fell Dec. 30, 1899.

Of course, we do not intend to convey the idea that they don't "know a thing or two," but we know that it takes lots of enthusiasm in all lines to make a country prosperous and we feel like we are a little short on enthusiasm. Success to the RURAL WORLD. J. C. BERRY.

### AN ARKANSAS LETTER.

**Editor RURAL WORLD:** Franklin County, Ark., in which I live, lies in the Dardanelle division of the beautiful Arkansas valley that runs east from Fort Smith to Dardanelle, 97 miles. The valley has some very productive soil, on which are established many happy, prosperous and beautiful homes. While the soil is peculiarly adapted to the growing of peaches, pears, grapes and small fruits, it produces corn, cotton, wheat, oats and vegetables of almost an endless variety.

We usually grow two crops of Irish potatoes each year. Clover, timothy and red top do well, but are not largely grown because we have all the hay necessary for horse use, and some to spare, from our meadows of native grass.

We have timber and prairie lands, building stone, coal, etc. While we have schools, churches and other advantages too numerous to mention, we are forced to admit that we are a "jeedie" behind the "toimes." Among a few of the things we need here are men versed in the breeding of fine cattle, hogs, poultry, etc. Of course we know it is a little bit selfish, but we wish some thorough-going, progressive farmers and cattle breeders would come down among us and bring those excellent Durham and Hereford cattle, Poland-China and Berkshire hogs, etc. Don't bring any Jersey cattle, please.

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Franklin Co., Ark.

### THE WHITE GRUB.

M. C. Shurtliff, a Arkansas reader, writes to ask what causes the white grub worm which he finds under old stock bottoms, manure piles and in the meadows. He says they are working on his winter wheat, cutting it off near the ground, and wants to know if they will continue to work on the wheat next spring.

Singer machines are simple that a child can understand them; they are so strong that a bungler can hardly get them out of order. Every part is made with such precision and from the best materials, fitted in its place with the utmost exactness, and tested and re-tested so many times before leaving the factory, that there is nothing to fear except a woman's patience, destroy the fruits of her labor, and consume her time in vexing attempts to coax the machine to a proper performance of duty.

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From the very beginning there has been a constant evolution in the construction of these machines, a ceaseless attempt to enlarge their usefulness by adapting them to the performance of every stitching operation, a continuous improvement in the design of every part.

Singer machines are simple that a child can understand them; they are so strong that a bungler can hardly get them out of order. Every part is made with such precision and from the best materials, fitted in its place with the utmost exactness, and tested and re-tested so many times before leaving the factory, that there is nothing to fear except a woman's patience, destroy the fruits of her labor, and consume her time in vexing attempts to coax the machine to a proper performance of duty.

With the coming of cold weather, or, perhaps, more properly speaking, in late autumn, they go deeper into the ground, sometimes a foot or even more, and make for themselves small earthen cells by pecking the earth more densely about their bodies and in these cells pass the winter, coming upward in the spring, feeding upon the grass roots throughout the entire summer, and at the end of the second autumn they have reached about two-thirds of their ultimate dimensions.

They now burrow into the ground and again pass the winter in an earthen cell coming to the surface again in the spring and feeding until the latter part of May in the latitude of the Ohio station, when they abandon the grass roots, burrow down into the ground and again make an earthen cell, within which they transform to the adult beetle.

It is possible that an occasional individual may appear above ground in the fall, but the mass of them pass the winter in this condition and come to the surface as adults the following May. Thus it will be seen that they have fed during a portion of three years. The young of the insect is by nature a grass feeder, and therefore they are always more abundant in fields that have remained in grass for a long series of years. The major portion of their injury in cultivated fields occur the first summer immediately following a series of grass crops.

From the life history of these pests, as given by the writer, it is quite probable that late fall or winter plowing is much more dependable. The reason for this is that after the grubs have constructed their winter quarters they are probably too stupid to construct others. If then the ground is broken, the grubs within their winter quarters are either thrown up to the action of continued freezing and thawing, or, if not thrown up, are exposed to the more direct effects of rain and frost, and thus killed by the winter weather. That this method is effective in the majority of cases there can be no doubt.

How early farming begins. On the first day of January quite a number of our farmers were out breaking down their stalk fields. It is well to have working confidence in one's business, and be so vigilant as to push every opportunity of advantage. If the great Napoleon knew every one of his soldiers, why shouldn't a farmer be well acquainted with every feature of his profession?

I am glad the subject of curing meat is receiving ample airing, for the topic needs a general agitation until our farmers are qualified along this line of domestic economy. The average farmer cannot compare successfully with the Hammond, Armour, Swift and other great meat companies when it comes to good, sweet meat.

While early fall plowing is known to be often effective, it is quite probable that late fall or winter plowing is much more dependable. The reason for this is that after the grubs have constructed their winter quarters they are probably too stupid to construct others. If then the ground is broken, the grubs within their winter quarters are either thrown up to the action of continued freezing and thawing, or, if not thrown up, are exposed to the more direct effects of rain and frost, and thus killed by the winter weather. That this method is effective in the majority of cases there can be no doubt.

A FLORIDA LETTER.

**Editor RURAL WORLD:** I will treat of Florida from a standpoint I have never seen discussed as yet, and that is the time from a hygienic standpoint to come South. The impression seems to prevail in the North that if a person comes here to reside in the summer that he is taking a big risk of contracting chills and fever and malarial, and that as it is so unbearable hot in the North that it surely must be intolerably hot here. Now, such conclusions are entirely erroneous, for it is a matter of fact that the United States troops from New York and other states were more healthy and had less sickness among them while they were encamped at Tampa 60 miles south of this city than at any other southern point, and that there was less sickness than in the northern barracks. This is an important fact to impress on the minds of those who come here to make it their permanent home.

Generally it suits the Eastern or Western man best to close out his business and come South in February, March or April. This does not make against his

success here, especially if he is going to grow tobacco and strawberries as main crops, or tobacco followed by sweet potatoes, string beans or egg plants, all of which breed together admirably. He will only have to buy his tobacco plants if he comes in April and they can be had for 75 cents per thousand, boxed ready for shipment, for this is a wonderful country in which to grow plants.

Celery may be planted in February, also the Bermuda onions. String beans planted in February will be marketed in April and May. Irish potatoes we continue to plant until Feb. 10. Orange trees may be planted in February, March and April.

The markets for our produce are largely in the Eastern and Northern cities, yet much of our early cabbage beans, cucumbers, squashes, potatoes, other vegetables and berries find a market in southern cities. There is a great variety of products grown and it is a source of wonder to me that capitalists do not purchase large tracts of these cheap lands, selling at from \$7 to \$2 per acre, and have the same developed as was done in Texas and Illinois some 30 years ago. I have seen the crops from three and one-half acres of \$100 land the past year sold for over \$800 besides 100 bushels of sweet potatoes, not sold, but used for home consumption. The crops grown were tobacco followed by egg plants and sweet potatoes. These were only deadened and it cost only \$10 an acre to clear the undergrowth.

Dade City, Fla. W. E. EMBRY.

Yours truly,  
R. R. BRINKLEY.

Is this genuine? Write him, send postal card for reply. It will give us pleasure to send you hundreds more. We want to tell you all about it, may we?

MONEY SAVED BY BUYING QUICK.

## Hallock's Success Anti-Clog Weeder AND CULTIVATOR TAHT

Pays for Itself the First Season, Say Farmers Who Have Used It.

### TESTIMONIAL

I thought I would write to you in regard to selling your weeder next season. I can talk now from my own experience as to their value in the country.

Last spring was a dry one here. I sowed my clover seed after I got the weeder and used it to see how well it would have the stay stand of clover that I had in this part of the country. I have a lot to learn, but I think the weeder worked well. I used it on potatoes with good results and it did not pull up during the rest of the hot weather, as did all of my neighbors. A number of the farmers have expressed a desire to have them for the next season. Can I have the agency?

Yours truly,  
R. R. BRINKLEY.

Is this genuine? Write him, send postal card for reply. It will give us pleasure to send you hundreds more. We want to tell you all about it, may we?

MONEY SAVED BY BUYING QUICK.

D. Y. HALLOCK & SONS, Box 832, YORK, PA.

**HAWKEYE STUMP PULLER...**  
Makes a Clean Sweep of Two Acres at a Siting.  
  
A man, a boy and a horse can operate it. No heavy chains or rods to handle. You cannot longer afford to pay taxes on unproductive timber land. Illustrated catalogue FREE, giving prices, terms and testimonials, also full information concerning our I. X. L. Grabber, Iron Giant Grub and Stamp.

817 MILNE MFG CO., 8th ST. MONMOUTH, ILL. SHETLAND PONY CATALOGUE.

ADDRESS MILNE BROS. FOR

SHETLAND PONY CATALOGUE.

## OLIVER WHITEMAN'S BROOD SOW SALE

### 45 POLAND-CHINA SOWS,

Of Good Breeding and Individuality,

Stronghurst, Ill., on Thursday, Feb. 22, 1900.

25c SEED OFFER. 25c  
As an inducement to secure our general orders from new customers, and to demonstrate the superior quality of our Seeds, we will mail postpaid either of the following packets of Vegetable seeds; your choice of Catalogue or from our 1900 Descriptive Catalogue.

Collection No. 1.—Ten (10) packets of Vegetable seeds; your selection of six packages from our 1900 Descriptive Catalogue.

Collection No. 2.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

Collection No. 3.—Ten (10) packets of Vegetable seeds; your choice of six packages from our 1900 Descriptive Catalogue.

Collection No. 4.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

Collection No. 5.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

Collection No. 6.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

Collection No. 7.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

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Collection No. 9.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

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Collection No. 13.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

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Collection No. 15.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.

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Collection No. 29.—Ten (10) packets of Flower seeds; your selection of six packages from our 1900 Descriptive Catalogue.